

REMARKS

5 In response to the Examiner's Action mailed on December 18, 2003, claims 13 to 14 are amended. The applicants hereby respectfully request that the patent application be reconsidered.

An item-by-item response to Examiner's objections or rejections is provided in the followings:

10 **I. Rejection of Claims Under 35 USC § 103**

The Examiner rejects claims 13 to 14 under 35 USC § 103(a) as being unpatentable over Polarek et al (US Patent 5,510,328) in view of Arnold (US Patent 5,766,631).

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In response to Examiner's rejections, claims 13 and 14 are amended. The amended claim 13 is directed to a method promoting wound healing in a subject, said method comprising administering to said subject a composition comprising:

- 20 a) a multiple-layered glycosaminoglycan structure, wherein said glycosaminoglycan structure comprises a core of free glycosaminoglycan, a layer of crosslinked glycosaminoglycan strands surrounding said core;
- 25 b) a charged molecule surrounding said layer of crosslinked glycosaminoglycan strands; and
- c) an excipient.

30 Similarly, claim 14 is also amended to direct to a method for treating a glycosaminoglycan-mediated condition in a subject, said method comprising administering to said subject a composition comprising:

- a) a multiple-layered glycosaminoglycan structure, wherein said glycosaminoglycan structure comprises a core of free

glycosaminoglycan, a layer of crosslinked glycosaminoglycan
strands surrounding said core;

- b) a charged molecule surrounding said layer of crosslinked
glycosaminoglycan strands; and
- 5 c) an excipient.

10 In comparison to the prior art references, even that Polarek and Arnold
both disclose the use of biomaterials that may seem to be relevant to the
present invention for the purpose of inhibiting wound contraction and
wound implant, however, the amended claims are now directed to a
method that is new and non-obvious. The amended claims 13 and 14 are
now directed to biomaterials having a three-dimensional structure, i.e., a
multiple layered structure, wherein the glycosaminoglycan constitutes the
core, cross-linked glycosaminoglycan formed as an outer layer as a shell to
15 wrap the glycosaminoglycan core inside, and then resurfaces the outside
layer of the stranded glycosaminoglycan with polylysine. The three
dimensionally structured glycosaminoglycan strands greatly increases the
surface area. Consequently a remarkably increased function: let 20 times
more cells glide into the wound area and activate the cell's adhesion and
proliferation compare to the common combination of the mentioned arts (
20 Polarek and Arnold).

25 For these reasons, the amended claims 13 and 14 would be novel
and not obvious over the cited prior art references. The Applicant hereby
respectfully requests that the rejection be withdrawn for the amended
claims.

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With the amended claims, and the reasons provided above, the applicant hereby respectfully requests that Examiner's rejections under 35 USC § 103 be withdrawn and the present application be allowed.

5 Respectfully submitted
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